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ABSTRACT

The relationship between locus of control and value orientation was studied in adult teacher education majors. The Rotter Internal External Locus of Control Scale and Rokeach Value Survey were administered to 413 undergraduate and graduate students ranging in age from 18 years to over 50. Demographic data were also collected. The results showed that locus of control shifted as age increased to a more internal orientation. Furthermore, males were more internally oriented than females. Significant age differences and sex differences were observed for both terminal and instrumental values, as determined by two-way analysis of variance. Partial correlations of terminal and instrumental value rankings with locus of control scores controlled for age and sex indicated that more internally oriented persons valued self respect, wisdom, freedom, a sense of accomplishment, and intellectualism. Externally oriented persons valued family security, a comfortable life, and cheerfulness. (Author/GDC)

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Locus of Control and Value Orientations of Undergraduate and Graduate Students in a Teacher Education Program

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Paper presented at the annual meeting of the American Educational Research Association, Chicago, April, 1985.

ABSTRACT

The purpose of this study was to describe the relationship between Locus of Control and Value Orientations of adult learners enrolled in a teacher education program. Demographic information and data from Rotter's Internal-External Locus of Control Scale and Rokeach's Value Survey were gathered from 413 subjects. The results showed that LOC orientations shifted as age increased and that males were more internally oriented than females. Significant age and sex differences were observed for both terminal and instrumental values as determined by two-way analysis of variance. Partial correlations of terminal and instrumental value rankings with Locus of Control scores controlled for age and sex indicated that more internally oriented persons valued "Self-Respect," "Wisdom," "Freedom," "A Sense of Accomplishment," and "Intellectual." Externally oriented persons valued "Family Security," "A Comfortable Life," and "Cheerful."

In recent years there has been an influx of adult learners who have turned to the university for career preparation, enhancement, or change. This is especially noticeable in teacher education programs where numbers of women are seeking entrance into the teaching profession.

Generally, one would assume that these students of varying ages would reflect differences in their value orientations and in their sense of personal control. To what degree is this a valid assumption? Should teacher educators be more concerned about differences in age, self-reliance, and value orientations of adult learners who are becoming more prominent in their classes? To date answers to these questions have not been studied systematically for adult learners in a university setting.

The literature on adult development suggests the idea that as age increases there is an internal orientation shift in perceived self-control and values (Levinson, 1978; Gould, 1978; and Knoop, 1981).

Researchers primarily concerned with issues of personal control and self-reliance have tended to approach the issue from the theoretical basis of social learning theory (Rotter, 1966; Phares, 1976; Lefcourt, 1982, 1983). This theoretical perspective stresses the belief that behaviors are determined simultaneously by the variables of expectancy and reinforcement value. Specifically, these researchers have stressed the idea of Locus of Control (LOC) which refers to the belief about the causal relationship between behavior and the subsequent occurrence of a reinforcement. External control refers to a belief that fate, luck, chance, or powerful others mediate the causal relationship. Internal control refers to the belief that the occurrence of reinforcements are contingent upon one's own behavior. Other

researchers have advocated studying LOC measures in interaction with assessments of values and interests (Naditch, 1973; Volk and DuCette, 1973).

Additionally, research by Rokeach (1973) has shown that there are developmental patterns in values with the aging process. More specifically, Rokeach (1979) described two main types of values: terminal or ends values and instrumental or mean values. Terminal values refer to goals that are worth striving toward (e.g., freedom and equality), while instrumental values refer to conceptions of desirable modes of behavior that help to attain valued outcomes (e.g., honesty and responsibility).

What has not been studied systematically is the relationship that may exist between Locus of Control and values of adults who use the university as a means of mid-career professional development, career change, and/or re-entry into the work force. Accordingly, the purpose of this study was to describe the relationship between Locus of Control and Value Orientations of adult learners in a large urban university.

Specifically, the following research questions guided this research:

1. What are the LOC orientations of adult learners in a university setting and is there a shift in LOC to a more internal orientation as age increases?
2. Do males and females have different LOC orientations?
3. What are the values of adult learners in a university setting and do value priorities shift as age increases?
4. Do males and females have different value priorities?
5. What is the relationship that exists between sex, age, LOC, and values of adult learners in a university setting?

METHOD

The study was delimited to undergraduate and graduate students ranging in age from 18 years to over 50. Subjects were enrolled in education programs at Virginia Commonwealth University in Richmond during the 1983-1984 academic year. There were 413 subjects (337 females and 76 males) in the final sample.

Rotter's Internal-External Locus of Control Scale was used as one of the instruments. This instrument, developed by Rotter (1966), consisted of 23 question pairs and used a forced-choice format plus six filler questions. The Rotter IE scale has been judged appropriate for use with college educated adult subjects (Lefcourt, 1981).

Rokeach's Value Survey was the second instrument used. This instrument consisted of 18 alphabetically listed terminal values listed on one page and 18 alphabetically listed instrumental values listed on a second page. Subjects rank order each list of values according to the relative importance of each value to themselves.

A three part survey comprising demographic data plus the two instruments were given to full-time instructors to distribute to their on- and off-campus classes. Part I requested demographic data including items such as age, sex, teaching experience, marital status, and proposed teaching level. Part II consisted of Rotter's IE Locus of Control Scale and Part III included Rokeach's Value Survey (Form D). Subjects were asked to take the questionnaires home, complete and return them via a self-addressed envelope. There were 413 useable questionnaires returned for data analysis. This represented slightly more than a 50% return rate and was deemed appropriate for this pilot investigation. The data presented herein represent the first phase of a

proposed five year study of adult students in various professional schools within the university.

RESULTS AND DISCUSSION

Question one asked what are the LOC orientations of adult learners and if there was a shift in LOC to a more internal orientation as age increased. Question two asked if males and females have different LOC orientations. Table 1 displays the data for these two questions respectively.

Insert Table 1 about here

On the Rotter IE scale the lower the score the more internally oriented a subject is. The two-way analysis of variance indicated that subjects were more internally oriented as age increased. This result is consistent with that of Knoop (1981). It should be noted that for the two older age groups the mean LOC scores were at or below 8.56. In most studies, a mean score at this level is considered a relatively internal orientation on an IE scale that ranges from 1 to 23. Therefore, for this study most of the subjects in this sample from the School of Education tended to be internally oriented but that older students were more so.

The data also indicated that the male LOC mean scores was lower than the female LOC mean score. While not reaching statistical significance, the data suggested that males were more internally oriented than females. This trend toward males being more internally orientated than females was also reported by McNeill and Jacobs (1980).

Question three addressed the value priorities of adult learners in a university setting and asked whether or not there was a shift in priorities as age increased. Question four addressed the issue of whether or not males and females have different value priorities.

The mean rankings for terminal values by sex and age are presented in Table 2 and were analyzed by means of a two-way analysis of variance as well as Duncan's Multiple Range Test.

Insert Table 2 about here

Regarding age differences, "A Sense of Accomplishment" was ranked less important by the youngest age groups as compared to the two older age groups, $F(2, 407) = 2.85$, $p = .05$. "Family Security" was ranked as more important by the over 39 age groups as compared to the two younger age groups, $F(2, 407) = 2.83$, $p = .06$. "National Security" was ranked more important by the oldest age groups, $F(2, 407) = 3.80$, $p = .02$. "True Friendship" was ranked significantly different by all three age groups, with the youngest age groups valuing it more important than the others, $F(2, 407) = 7.66$, $p = .001$.

Concerning sex differences, "A Sense of Accomplishment" was ranked as more important by males, $F(1, 407) = 3.08$, $p = .07$. "A World of Peace" was valued more highly by females, $F(1, 407) = 3.56$, $p = .05$ as was the value "Equality," $F(1, 407) = 4.08$, $p = .04$. Males also valued "Wisdom" more highly than females, $F(1, 407) = 5.06$, $p = .02$. Age by sex interactions were observed for "A Comfortable Life," $F(2, 407) = 4.07$, $p = .01$, and "A World of Beauty," $F(2, 407) = 4.08$, $p = .01$.

It is important to note that there were no differences between age groups or sex for the value "Self-Respect." All subjects ranked this value as most important. "Self-Respect" was also reported as a high value priority for males and females by Linder and Bauer (1983).

Table 3 displays the mean rankings for the instrumental values by sex and age.

Insert Table 3 about here

Statistically significant differences between age groups were observed for the following values.

"Capable" was ranked as less important by the youngest age groups as compared to the older age groups, $F(2, 407) = 6.23$, $p = .002$. Rokeach (1973) reported that for the value "Capable," people in their forties tended to rank it as more important than younger persons. The findings in the present study are consistent with these results.

"Imaginative" was valued more highly by the middle age groups (23-39) as compared to the oldest and youngest students, $F(2, 407) = 2.65$, $p = .07$. "Obedient" was more important to the youngest age groups when compared to the older age groups, $F(2, 407) = 8.00$, $p = .001$.

Statistically significant differences between the sexes were observed for the following instrumental values. "Cheerful" was ranked more highly by females, $F(1, 407) = 6.04$, $p = .01$, as was "Forgiving," $F(1, 407) = 3.85$, $p = .05$, and "Loving," $F(1, 407) = 8.82$, $p = .003$.

Age by sex interactions were observed for the following values: "Intellectual," $F(2, 407) = 4.09$, $p = .01$; "Logical," $F(2, 407) = 3.50$, $p =$

.03.; "Polite," $F(2, 407) = 5.46$, $p = .005$; "Self-Controlled," $F(2, 407) = 4.15$, $p = .01$. It should be noted that there were no statistically significant differences observed for age or sex on the values "Honest" and "Responsible." They were ranked as either the first or second most important value.

Question five asked what relationship existed between sex, age, LOC, and values of adult learners in a university setting. Matched partial correlations of terminal value rankings with LOC scores controlled for age and sex are displayed in Table 4 (Quade, 1974). A positive correlation indicated that the more internal one was the more one tended to subscribe to that value. Conversely, a negative correlation meant that the more external one was the more one subscribed to that value.

Insert Table 4 about here

The data indicated that more internally oriented persons valued "Self-Respect," "Wisdom," "Freedom" and "A Sense of Accomplishment." While the correlations were not strong, the p values indicated a trend toward a positive relationship between LOC and these terminal values. Conversely, more externally oriented persons valued "Family Security," and "A Comfortable Life." Again the p values suggested a trend to support these findings.

Partial correlations of instrumental value rankings with LOC scores when controlled for age and sex are shown in Table 5. The data indicated that more internally oriented students valued "Intellectual." This finding is consistent with past research depicting internally oriented persons as valuing

intellectual activities (Crandall and Crandall, 1983). Conversely, the data indicated that externally oriented students valued "Cheerful."

Insert Table 5 about here

The results of the present study suggest that teacher educators may wish to use a variety of teaching strategies that are compatible with adult students' LOC orientations and value priorities. For example, activities that stress self-reliant and pro-active modes of behavior that are intellectually stimulating may enhance student self-esteem. Such learning experiences may be more beneficial and efficacious to both faculty and students than traditional approaches.

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Table 1

Locus of Control Mean Scores By Age and Sex

Age	N	Mean	SD
18-22	100	10.69	4.17
23-39	233	8.56	3.89
Over 39	80	7.90	3.73

$F(2, 407) = 6.64$, $p = .002$

Sex	N	Mean	SD
Males	76	7.82	3.49
Females	337	9.20	4.12

$F(1, 407) = 2.99$, $p = .084$

Table 2

Mean Rankings for Terminal Values by Sex and Age

	MALE AGE GROUP			FEMALE AGE GROUP		
VALUE	18-22 (n=11)	23-39 (n=44)	Over 39 (n=21)	18-22 (n=89)	23-39 (n=189)	Over 39 (n=59)
A Comfortable Life	8.36(7)*	10.68(11)	8.24(6)	11.99(13)	10.59(12)	11.73(14)
An Exciting Life	12.45(17)	11.45(13)	10.00(12)	12.48(14)	11.78(14)	13.10(16)
A Sense of Accomplishment	9.55(9)	7.84(7)	5.90(3)	9.36(12)	8.39(8)	8.85(9)
A World of Peace	10.27(11)	10.09(10)	9.81(11)	8.69(10)	9.12(10)	8.19(7)
A World of Beauty	11.82(14)	12.89(16)	14.86(18)	13.08(16)	12.71(15)	11.86(15)
Equality	10.36(12)	11.59(14)	12.10(15)	9.16(11)	10.53(11)	10.22(11)
Family Security	7.45(5)	6.91(4)	4.95(1)	6.90(4)	5.99(2)	5.44(2)
Freedom	7.91(6)	6.09(2)	7.67(5)	7.53(5)	7.33(5)	6.32(3)
Happiness	7.36(4)	7.55(6)	8.86(8)	6.81(3)	6.89(3)	7.61(5)
Inner Harmony	9.18(8)	7.23(5)	8.76(7)	8.48(9)	7.26(4)	6.80(4)
Mature Love	10.64(13)	8.32(9)	9.19(9)	7.74(6)	8.23(7)	9.73(10)
National Security	13.72(18)	13.43(18)	12.00(14)	12.94(15)	13.13(17)	10.90(13)
Pleasure	11.91(15)	12.20(15)	13.24(17)	13.10(17)	13.06(16)	14.41(18)
Salvation	9.82(10)	10.91(12)	11.05(13)	8.25(8)	11.04(13)	10.53(12)
Self-Respect	6.18(2)	5.73(1)	5.33(2)	5.61(1)	5.29(1)	4.92(1)
Social Recognition	12.36(16)	13.25(17)	13.10(16)	14.30(18)	13.52(18)	13.81(17)
True Friendship	5.36(1)	8.02(8)	9.43(10)	6.43(2)	7.52(6)	8.68(8)
Wisdom	6.73(3)	6.82(3)	6.52(4)	8.16(7)	8.62(9)	7.92(6)

* The number in parentheses is the composite rank-order for the value for the particular age-sex group, based on the mean ranking.

Table 3

Mean Rankings for Instrumental Values by Sex and Age

	MALE AGE GROUP			FEMALE AGE GROUP		
VALUE	18-22 (n=11)	23-39 (n=44)	Over 39 (n=21)	18-22 (n=89)	23-39 (n=189)	Over 39 (n=59)
Ambitious	8.73(6)*	10.05(13)	9.00(7)	10.09(11)	9.88(10)	11.19(14)
Broadminded	7.45(3)	7.02(3)	8.29(4)	8.45(6)	9.16(9)	8.51(8)
Capable	10.18(11)	8.16(7)	7.29(3)	10.58(12)	7.86(5)	8.22(6)
Cheerful	11.91(17)	11.86(15)	11.86(15)	9.79(9)	9.98(11)	10.81(13)
Clean	13.27(18)	14.70(17)	12.52(17)	12.02(15)	12.85(17)	13.34(17)
Courageous	11.18(15)	9.68(11)	9.14(9)	10.73(14)	10.51(12)	9.42(10)
Forgiving	9.18(8)	10.75(14)	9.90(12)	7.40(4)	9.02(8)	9.49(11)
Helpful	8.27(5)	9.39(10)	8.81(5)	8.19(5)	8.19(6)	8.86(9)
Honest	5.91(2)	6.02(1)	4.81(2)	4.21(1)	5.13(1)	4.73(1)
Imaginative	10.82(13)	9.84(12)	12.10(16)	12.61(17)	11.21(14)	12.02(16)
Independent	9.27(9)	8.66(9)	9.00(7)	9.66(8)	7.44(4)	7.17(3)
Intellectual	10.73(12)	7.39(5)	10.86(14)	10.63(13)	8.82(7)	8.08(5)
Logical	11.09(14)	8.30(8)	10.62(13)	12.39(16)	11.22(15)	9.90(12)
Loving	7.73(4)	7.05(4)	9.57(11)	4.89(2)	5.89(3)	7.47(4)
Obedient	11.36(16)	15.25(18)	14.24(18)	13.76(18)	15.44(18)	15.97(18)
Polite	9.91(10)	13.09(16)	8.95(6)	9.92(10)	11.67(16)	11.85(15)
Responsible	4.91(1)	6.02(1)	4.71(1)	6.13(3)	5.76(2)	5.64(2)
Self-controlled	9.09(7)	7.77(6)	9.38(10)	9.53(7)	10.95(13)	8.32(7)

* The number in parentheses is the composite rank-order for the value for the particular age-sex group, based on the mean ranking.

Table 4

Partial Correlations of Terminal Value Rankings With Locus of Control Scores Controlling For Age and Sex

Value	Partial Correlation	P-Value
Self-Respect	.071	.064
Wisdom	.069	.086
Freedom	.062	.094
A Sense of Accomplishment	.060	.100
A World of Beauty	.048	.198
True Friendship	.026	.529
Inner Harmony	.024	.491
Equality	.020	.598
Mature Love	.018	.631
Social Recognition	.009	.821
An Exciting Life	-.009	.814
A World of Peace	-.010	.785
Happiness	-.019	.631
Pleasure	-.029	.454
Salvation	-.042	.278
National Security	-.047	.212
A Comfortable Life	-.071	.064
Family Security	-.077	.048

Note: P-value is for a two-tailed test.

Table 5

Partial Correlations of Instrumental Value Rankings With Locus of Control Scores Controlling for Age and Sex

Value	Partial Correlation	P-Value
Intellectual	.055	.168
Logical	.038	.350
Polite	.037	.338
Honesty	.021	.580
Ambitious	.017	.655
Imaginative	.015	.695
Independent	.010	.800
Courageous	.008	.824
Responsible	.005	.902
Loving	-.002	.952
Capable	-.007	.850
Forgiving	-.018	.640
Self-Controlled	-.021	.583
Obedient	-.023	.555
Clean	-.025	.509
Helpful	-.035	.386
Broadminded	-.040	.311
Cheerful	-.105	.006

Note: P-value is for a two-tailed test.